

REMARKS

Applicant respectfully requests reconsideration of this application in view of the foregoing amendment and following remarks.

Status of the Claims

Claims 1-36 are pending in this application. Claims 1, 8, 18, 31 and 32 are independent. All of the pending claims are rejected. Claims 1, 7, 8, 18, 31 and 32 are herein amended. No new matter has been added by this Amendment.

Objection

Claim 7 has been objected to because of informalities. The Examiner indicates that the term "p lurality" in lines 3-4 of claim 7 should be --plurality--.

Claim 7 has been amended to correct this informality. Applicant respectfully requests that this objection be withdrawn.

Rejection under 35 U.S.C. §102

Claims 1, 3, 5-9, 11, 13-20, 22-24, 26, 27, 29-32, 34 and 36 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,597,223 to Watanabe et al. ("Watanabe").

Referring to claims 1 and 32, the Examiner indicates that Watanabe discloses each and every element of the claims including "wherein said attenuating is based on an input image signal". The Examiner cites col. 14, lines 60-63; col. 22, lines 18-21; and Figs. 12 and 14 for the basis of the rejection.

The cited portions of Watanabe describe:

The electric aperture stop 111 stops down the beam of the modulated light from the modulating device 108 in order to control the angle range of light rays to be projected onto the screen SC. (col. 14, lines 60-63)

In the average picture level (APL) detector 140 illustrated in Fig. 14, an input positive picture signal from an input terminal 151 is applied to the collector of a transistor 174 via a coupling capacitor 171. (col. 22, lines 18-21)

Watanabe describes a projection type display device having a light source, a modulating device and its driving unit. Watanabe discloses a first aperture stop 104 to control the angle distribution of a light beam incident on the modulating device and a second aperture stop 111 to control the angle distribution of the modulated light beam from the modulating device. However, the control of the first and second aperture stop units of Watanabe is based on the contrast and luminance of the displayed image on a screen. Therefore, Watanabe's projection system requires a photosensor 128 to detect the luminance of the screen as shown in Fig. 6A.

Specifically, Watanabe describes:

The photosensor 128 consists of, e.g., a photodiode and a collimator lens. The luminance of the screen SC is measured on the basis of a signal supplied from the photosensor 128 to the display controller 121 via the photosensor interface circuit 124. (col. 16, lines 29-33)

Applicant notes that the input positive picture signal applied to the collector of the transistor 174 as cited above is also a luminance signal from the screen.

In contrast, one of the aspects of the invention as featured in claims 1 and 32 requires that the attenuation of the image light from the display device is based on an input image signal to the display device (e.g., a modulation device). Accordingly, the present invention does not require a detector to detect the luminance level of the screen as in Watanabe.

Other independent claims (i.e., claims 8, 18 and 31) recite similar features to claims 1 and 32, i.e., “wherein said attenuating is based on an input image signal to the display device.”

Nonetheless, independent claims 1, 8, 18, 31 and 32 have been amended for further clarification. In particular, each of claims 1, 8, 31 and 32 as amended recites “wherein said light amount adjusting means attenuates the image light based on an input signal to the display device.” Claim 18 as amended recites “wherein said control signal generating means generates a control signal on the basis of the luminance level of an input image signal to said light modulating element.”

Accordingly, Applicant believes that each of independent claims 1, 8, 18, 31 and 32 as amended is neither anticipated by nor rendered obvious in view of Watanabe for at least the reasons discussed above.

Reconsideration and withdrawal of the rejections of claims 1, 8, 18, 31 and 32 under 35 U.S.C. §102(b) is respectfully requested.

Double Patenting

In paragraph fourteen (14) of the office action, claims 18 and 21-29 have been provisionally rejected under judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 7 and 11-14, respectively, of co-pending Application No. 09/957,240 to Ouchi (“Ouchi”).

One of the aspects of the invention as featured in independent claim 18 as amended recites that “wherein said control signal generating means generates a control signal on the basis of the luminance level of an input image signal to said light modulating element so as to make

the amount of projection light great and the modulation of the write signal small when said luminance level is high, and to make the amount of projection light small and the modulation of the write signal great when said luminance level is low.” Applicant notes that none of the cited claims of Ouchi (i.e., claims 1-5, 7 and 11-14) recites the specific control method of claim 18 as amended as cited above. Thus, Applicant submits that such rejection is improper.

Reconsideration and withdrawal of the provisional rejection of claim 18 under judicially created doctrine of obviousness-type double patenting is respectfully requested.

Applicant has not individually addressed the rejections of the dependent claims because Applicant submits that the independent claims from which they respectively depend are in condition for allowance as set forth above. Applicant however reserves the right to address such rejections of the dependent claims should such be necessary.

Applicant believes that this application is in condition for allowance and such action is respectfully requested.

PATENT

Application Serial No. 10/043,944
Amendment dated January 15, 2004
Reply to Office Action of October 15, 2003
Docket No. 1232-4808

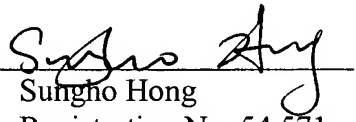
AUTHORIZATION

No petitions or additional fees are believed due for this amendment and/or any accompanying submissions. However, to the extent that any additional fees and/or petition is required, including a petition for extension of time, Applicant hereby petitions the Commissioner to grant such petition, and hereby authorizes the Commissioner to charge any additional fees, including any fees which may be required for such petition, or credit any overpayment to Deposit Account No. 13-4500 (Order No. 1232-4808). **A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.**

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,
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